

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018920**Date Inspected:** 29-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. M. Manikandan was present during the time noted above for observations relative to the work being performed.

**OBG # TRIAL ASSEMBLY YARD (11AE)**

This QA Inspector along with QA inspector Mr.Manjunath S Math and ABF QA inspector performed the dimensional survey inspection on the corner assembly X37B and X37C brackets to verify the road barrier bolt hole between deck panel and brackets cope hole on Lift 11E. The measurements were recorded on a separate sheet and forwarded to team leader for review and disposition. The segment and panel point designations were as follows:

Segment 11AE – PP 95.25, 95.75, 96.25 and 96.75

**OBG # TRIAL ASSEMBLY YARD (11BE)**

This QA Inspector along with QA inspector Mr.Manjunath S Math and ABF QA inspector performed the dimensional survey inspection on the corner assembly X37B and X37C brackets to verify the road barrier bolt hole between deck panel and brackets cope hole on Lift 11E. The measurements were recorded on a separate sheet and forwarded to team leader for review and disposition. The segment and panel point designations were as follows:

Segment 11BE – PP 97.25, 97.75, 98.25, 98.75, 99.25, 99.75

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### OBG # TRIAL ASSEMBLY YARD (11CE)

This QA Inspector along with QA inspector Mr.Manjunath S Math and ABF QA inspector performed the dimensional survey inspection on the corner assembly X37B and X37C brackets to verify the road barrier bolt hole between deck panel and brackets cope hole on Lift 11E. The measurements were recorded on a separate sheet and forwarded to team leader for review and disposition. The segment and panel point designations were as follows:

Segment 11CE – PP 100.25, 100.75, 101.25, 101.75, 102.25 and 102.75

### TOWER # BAY 10 (Lift 4 East)

This QA Inspector witnessed the final bolt tension verification on the grating support angle of lift 4 east tower. The torque wrench S/N was 1003153. The QA Inspector witnessed 10% of the bolts on a random basis and found the tensioning of the bolts appeared to be in general compliance with the contract specifications. The bolt size designations were as follows:

M20 X 55 – DHGM 200027 – 346 NM

M22 X 55 – DHGM 220011 – 457 NM

M22 X 110 – DHGM 220067 – 500 NM

For additional information please reference the pictures below:

This QA Inspector randomly observed the following work in progress:

### OBG # TRIAL ASSEMBLY YARD (12AW-12BW)

The QA Inspector observed the welding operation per the SMAW process on weld joint no. 042 in the (3G) vertical position on deck panel I stiffener piece mark no. DP3049-001. The location was the complete joint penetration groove weld joining the I stiffeners of segment 12AW and 12BW at counterweight side. The welder ID was 057333. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-3213-B-U3b.

### OBG # TRIAL ASSEMBLY YARD (12AW-12BW)

The QA Inspector observed the welding operation per the SMAW process on weld joint no. 026 in the (3G) vertical position on deck panel I stiffener piece mark no. DP3039-001. The location was the complete joint penetration groove weld joining the I stiffeners of segment 12AW and 12BW at crossbeam side. The welder ID was 041713. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-3213-B-U3b.

### OBG # TRIAL ASSEMBLY YARD (12BW)

The QA Inspector observed the welding operation per the SMAW process on weld joint no. 013 in the (2F) horizontal position on bottom panel WT stiffener piece mark no. BP3023-001. The location was the hold back of WT stiffener fillet weld of segment 12BW at counterweight side. The welder ID was 251194. The ZPMC CWI

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was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G (2F)-FCM-Repair-1.

OBG # TRIAL ASSEMBLY YARD (12AW)

The QA Inspector observed the welding operation per the SMAW process on weld joint no. 055 in the (2F) horizontal position on bottom panel WT stiffener piece mark no. BP3019-001. The location was the hold back of WT stiffener fillet weld of segment 12AW at counterweight side. The welder ID was 251194. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G (2F)-FCM-Repair-1.



### Summary of Conversations:

No relevant conversations were reported on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Manikandan,Murugan
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Peterson,Art
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QA Reviewer
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